



**U.S. Department of Justice**

*United States Attorney  
Eastern District of New York*

JAM/ADR/MS  
F.#2019R01707

*271 Cadman Plaza East  
Brooklyn, New York 11201*

October 1, 2024

By ECF and Email

Nora Hirozawa  
James Darrow  
Federal Defenders of New York  
One Pierrepont Plaza  
300 Cadman Plaza West, 16<sup>th</sup> Floor  
Brooklyn, New York 11201

Re: United States v. Vadim Yermolenko  
Docket No. 22-CR-409 (S-3) (HG)

Dear Counsel:

Pursuant to Fed. R. Crim. P. 16(a)(1)(G) and Fed. R. Evid. 702, 703 and 705, the government hereby provides notice that it may introduce the following expert testimony, as described below, during its case-in-chief at the upcoming trial of defendant Vadim Yermolenko. While not all of the expected witnesses or their anticipated testimony require notice or expert qualification at trial, out of an abundance of caution the government is making an overinclusive notification at this time to ensure the defendants have adequate notice in preparation for motion practice and trial.

We anticipate providing complete Rule 16 disclosures in the next two weeks. Should we identify additional subject matter requiring expert testimony, we will provide additional notice and disclosures as promptly as possible. The government reserves the right to supplement and/or correct these disclosures if appropriate. See Fed. R. Crim. P. 16(a)(1)(G)(vi).

I. Testimony Regarding Russia's Reliance on Western Technology and Procurement Efforts

The government expects to call one or more witnesses to provide testimony regarding the Russian military's need for Western and U.S. technology and its illicit efforts to procure such technology. These efforts have been underway for decades, as the Soviet Union's—and later the Russian Federation's—intelligence services have prioritized the collection of scientific and technological information from the West in order to maintain parity with the United States. To do so, Russia has engaged in expansive espionage operations and

the illicit procurement of U.S. and Western components for its own weapons programs and research and development. These efforts involved thousands of individuals spread across various government-run entities, including security services, branches of the military, research institutes, and universities.

While the Russian government has attempted to cultivate its own research and development, its industrial base and research institutions have largely failed in developing the most cutting-edge technologies. Similarly, following the imposition of sanctions and tighter export controls in recent years, the Russian government has attempted to address its lack of access to critical components through imports from China, North Korea and elsewhere. This approach too has generally not succeeded in supplying the Russian military and research institutions with high-end technologies. As a result, Russia has increasingly engaged in sanctions and export control evasion, which has become a critical priority for its military and intelligence services. This is particularly true after the 2022 Russian invasion of Ukraine, which required continuous replenishment of supply in the face of new sanctions, financial restrictions and export controls levied by the U.S. and Western countries.

In response, Russia's military and intelligence services have built up global clandestine networks and third-country transshipment hubs to secure access to U.S. and Western microelectronics and other dual-use components. Specifically, Russia has operated a range of networks to illicitly procure goods in the U.S. and Europe using a range of front companies, fraudulent end-user licenses, and other techniques originally pioneered by its Soviet predecessors. Russia has also relied on large microelectronic distributors in transshipment hubs such as Hong Kong, Dubai and the Baltics, which have continued to move goods to Russia despite sanctions and export controls.

Indeed, Russia's weapons contain large numbers of microelectronic components originally manufactured in North America, Europe and East Asia. While some of these, such as commercial off-the-shelf components, might be comparatively easy for the Russian armed forces to purchase through domestic or international wholesalers, others are acquired by clandestine networks operated by Russian intelligence and the military.

Serniya Engineering LLC and Sertal LLC (the "Serniya Network") provide an example of this sort of network. Archived instances of Serniya Network companies show that their major procurement projects were undertaken on behalf of Russia's Ministry of Foreign Affairs and other government agencies, including the Federal Security Service ("FSB") and the Foreign Intelligence Service ("SVR"), and the network advertised an ability to supply components from American companies such as Texas Instruments, Analog Devices, Cypress Semiconductors, NXP Semiconductors, STMicroelectronics and a range of others. Examination of commercially-available shipping and trade records reflect that Sertal did, in fact, import these types of U.S.-origin items. For example, as recently as March 2021, Sertal imported approximately \$600,000 worth of electronic integrated circuits manufactured by Texas Instruments through a Hong Kong intermediary. Seven months later, the company imported another \$1.1 million worth of electronic integrated circuits manufactured by Xilinx from the same Hong Kong exporter.

This testimony will be predicated on the witnesses' background, education, training and experience. This includes analysis of extensive datasets of components and microelectronics sourced from disassembled Russian weapons either captured or expended in Ukraine since February 2022. These compilations of technical assessments were databased, standardized and categorized to enable further analysis. Additionally, physical inspection of a significant sample of the weapons systems and platforms during fieldwork confirmed the authenticity and accuracy of this data, which was also compared to product descriptions and serial numbers published by a wide variety of manufacturers. This data was then married with a range of other sources, such as shipment-level trade data, import and export declarations, and Russian corporate records to understand Russia's procurement networks and place these components in their tactical, operational and strategic contexts.

## II. Testimony Regarding Potential Applications for Relevant Export-Controlled Electronics

The government expects to call a witness to explain the types of export-controlled electronics sourced by the Serniya Network and their potential application for, *inter alia*, radar and communications equipment, surveillance components, satellites, quantum technologies, and nuclear and hypersonic weapons. Some of these items were shipped by Yermolenko and other co-conspirators or utilized front companies and bank accounts registered to or controlled by Yermolenko.

For example, test equipment with a combined high frequency output power and operating frequency are controlled from export to prevent adversaries and bad actors from using the equipment to jam or monitor radar and communications equipment. Another example is a radiation-hardened analog-to-digital converter, which is used in high bandwidth radar and optical communication systems, as well as satellites, space probes, and nuclear and hypersonic weapons, which are exposed to heightened radiation sources in outer space.

## III. Testimony Regarding Seized Export-Controlled Bullets

The government expects to call a witness to testify regarding the bullets recovered from co-conspirator Vadim Konoschenok in Estonia, which were export-controlled and prohibited from being exported to Russia without a license. Some of these bullets were paid for using an account registered to and controlled by Yermolenko. Expert testimony will establish that these bullets are suitable for use in military sniper rifles.

## IV. Testimony Regarding the CCL, SDN List and ECCN Numbers

The government expects to call witnesses to provide testimony regarding the roles of the Department of Treasury, Office of Foreign Assets Control, and the Department of Commerce, Bureau of Industry and Security, as well as the function and structure of the Commerce Control List, the Entity List and the Specially Designated Nationals List. Expert testimony will address the types of transactions that violate Office of Foreign Assets Control

regulations, discuss why certain items are controlled under Export Control Classification Numbers, and address the license requirements for the export of those items.

V. Flow of Funds Testimony

The government will elicit testimony regarding money movements related to certain illicit transactions involving Yermolenko, as well as the flow of funds through accounts owned or controlled by Yermolenko, Boris Livshits and other co-conspirators. Witnesses will not be asked to provide any opinion testimony regarding these money movements and flows.

To streamline the presentation of the voluminous underlying bank records, the government will also utilize summary charts reflecting the witness' flow of funds analysis.<sup>1</sup> Such a "flow of funds" analysis is summary evidence under Federal Rule of Evidence 1006, not opinion testimony under Rule 702.<sup>2</sup> The summary charts that will be used during testimony are being prepared and will be disclosed promptly as soon as they are available.

VI. Russian to English Translation

In the absence of any stipulation between the parties, the government will call one or more Russian translators to certify the accuracy of communications and other exhibits that have been translated from Russian to English.

VII. Demand for Reciprocal Expert Notice

Pursuant to Rule 16(b)(1)(C), the Government hereby demands reciprocal notice regarding any expert witness that the defendant intends to rely upon, including a written summary of any testimony that the defendant intends to use under Rules 702, 703, or 705 of the Federal Rules of Evidence. See Fed. R. Crim. P. 16(b)(1)(C)(i).

---

<sup>1</sup> The government will seek admission of summary charts reflecting these cash flows pursuant to Federal Rule of Evidence 1006 and Second Circuit precedent, which "has long approved the use of charts in complex trials, and has allowed the jury to have the charts in the jury room during its deliberations, so long as the judge properly instructs the jury." United States v. Ho, 984 F.3d 191, 210 (2d Cir. 2020).

<sup>2</sup> It is a fact, not an opinion, that funds moved from one account to another to another on certain dates, and it is not does require any special "knowledge, skill, experience, training, or education" to ascertain that fact. Fed. R. Evid. 702. For that reason, courts in this District and elsewhere have routinely permitted such testimony as non-expert summary evidence. See, e.g., United States v. Blakstad, No. 21-2859, 2023 WL 2668477, at \*23 (2d Cir. Mar. 29, 2023) (summary order); United States v. Lebedev, 932 F.3d 40, 49 (2d Cir. 2019); United States v. Aguilar, No. 20-CR-390 (ENV), Minute Entry dated Feb. 5, 2024.

The Government also repeats its request for reciprocal discovery under Fed. R. Crim. P. 16(b). Specifically, we request that you allow inspection and copying of: (1) any books, or copies or portions thereof, which are in the defendant's possession, custody or control, and which the defendant intend to introduce as evidence or otherwise rely on at trial; and (2) any results or reports of physical or mental examinations and of scientific tests or experiments made in connection with this case, or copies thereof, which are in the defendant's possession or control, and which the defendant intend to introduce as evidence or otherwise rely on at trial or which were prepared by a witness whom the defendant intends to call at trial.

The Government further requests that the defendant disclose prior statements of witnesses he will call to testify. See Fed. R. Crim. P. 26.2; United States v. Nobles, 422 U.S. 225 (1975). We request that such material be provided on the same basis upon which we agree to supply the defendant with 3500 material relating to Government witnesses, approximately two weeks before trial.

Respectfully submitted,

BREON PEACE  
United States Attorney

By: /s/ Artie McConnell  
Artie McConnell  
Andrew D. Reich  
Matthew Skurnik  
Assistant U.S. Attorneys  
(718) 254-7000

cc: Clerk of Court (by ECF)